	1	<u>CLAIMS</u>
	2	What is claimed is:
	3	
	41	Claim 1. A biopolymer marker selected from the group
)5()1	onsisting of sequence ID RHHPEHFSGRPRE, RIRHHPEHFSGRPRE,
	6	RITGIIKYEKPGSPPRE, (R) VDVIPVNLPGEHGQR(L) or at least one
	7	analyte thereof useful in indicating at least one
	8	particular disease state.
	9	
	10	Claim 2. The biopolymer marker of claim 1 wherein
4	11	said disease state is predictive of Alzheimers disease.
W	12	
	13	Claim 3. A method for evidencing and categorizing at
	14	least one disease state comprising:
H	15	obtaining a sample from a patient;
	16	conducting mass spectrometric analysis on said
ļ.	17	sample;
	18	evidencing and categorizing at least one biopolymer
	19	marker sequence or analyte thereof isolated from said
	20	sample; and,
	21	comparing said at least one isolated biopolymer
	22	marker sequence or analyte thereof to the biopolymer
	23	marker sequence as set forth in claim 1;
	24	wherein correlation of said isolated biopolymer
		\

marker and said biopolymer marker sequence as set forth in

1

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1
        consisting of Surface Enhanced Laser Desorption Ionization
   2
        (SALDI) mass spectrometry (MS), Maldi Qq TOF, MS/MS,
        TOF-TOF, and ESI-Q-TOF or an ION-TRAP.
   3
   4
   5
             Claim 9.
                        The method of claim 3, wherein said
        patient is a human.
   6
   7
                        A diagnostic assay kit for determining
   8
             Claim 10\
        the presence of the biopolymer marker or analyte thereof
   9
10
        of claim 1 comprising:
11
             at least one biochemical material which is capable of
O
        specifically binding with a biomolecule which includes at
□ 12
N
13
        least said biopolymer marker or analyte thereof, and
O
             means for determining binding between said
 14
<del>|</del> 15
        biochemical material and said biomolecule;
N
₩ 16
             whereby at least one analysis to determine a presence
H 17
        of a marker, analyte thereof, or a biochemical material
        specific thereto, is carried\out on a sample.
  18
  19
             Claim 11. The diagnostic assay kit of claim 10,
  20
        wherein said biochemical material\or biomolecule is
  21
  22
        immobilized on a solid support.
  23
             Claim 12. • The diagnostic assay & t of claim 10
  24
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	1	including:
	2	at least one labeled biochemical material.
	3	
	4	claim 13. The diagnostic assay kit of claim 10,
	5	wherein said biochemical material is an antibody.
	6	
	7	Claim 14 . The diagnostic assay kit of claim 12,
	8	wherein said labeled biochemical material is an antibody.
	9	
	10	Claim 15. $$ The diagnostic assay kit of claim 10,
	11	wherein the sample is an unfractionated body fluid or a
W	12	tissue sample.
ii O	13	
a Lut	14	Claim 16. The diagnostic assay kit of claim 10,
	15	wherein said sample is at least one of the group
	16	consisting of blood, blood products, urine, saliva,
ind:	17	cerebrospinal fluid, and lymph.
	18	
	19	Claim 17. The diagnostic assay kit of claim 10,
	20	wherein said biochemical material is at least one
	21	monoclonal antibody specific therefore.
	22	
_		Claim 18. A kit for diagnosing, determining risk-
	24	assessment, and identifying therapeutic avenues related to

```
A disease state comprising:
   1
   2
             at least one biochemical material which is capable of
        specifically binding with a biomolecule which includes at
   3
        least\one biopolymer marker selected from the group
   4
   5
        consisting of sequence ID RHHPEHFSGRPRE, RIRHHPEHFSGRPRE,
        RITGIIKY KPGSPPRE, (R) VDVIPVNLPGEHGQR(L) or an analyte
   6
   7
        thereof related to said disease state; and
   8
             means for determining binding between said
        biochemical material and said biomolecule;
   9
10
             whereby at \least one analysis to determine a presence
₫ 11
        of a marker, analyte thereof, or a biochemical material
Ü
        specific thereto, is carried out on a sample.
  12
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J
                        The kit of claim 18, wherein said
             Claim 19.
  15
        biochemical material or biomolecule is immobilized on a
solid support.
  16
  17
                        The kit of claim 18 including:
  18
             Claim 20.
             at least one labeled biochemical material.
  19
  20
                         The kit of claim \18, wherein said
  21
             Claim 21.
  22
        biochemical material is an antibody
  23
                         The kit of claim 20. wherein said labeled
  24
             Claim 22.
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	1	biochemical material is an antibody.
	2	
	3	Claim 23. The kit of claim 18, wherein the sample is
	4	an unfractionated body fluid or a tissue sample.
	5	
	6	Claim 24. The kit of claim 18, wherein said sample
	7	is at least one of the group consisting of blood, blood
	8	products, urine saliva, cerebrospinal fluid, and lymph.
	9	
	10	Claim 25. The kit of claim 18, wherein said
O	11	biochemical material is at least one monoclonal antibody
	12	specific therefore.
	13	
2	14	Claim 26. The kit of claim 18, wherein said
	15	diagnosing, determining risk assessment, and identifying
y	16 17	therapeutic avenues is carried out on a single sample.
	17	
	18	Claim 27. The kit of claim 18, wherein said
	19	diagnosing, determining risk assessment, and identifying
	20	therapeutic avenues is carried out on multiple samples
	21	such that at least one analysis is carried out on a first
	22	sample and at least another analysis is carried out on a
	23	second sample.

24

	1	Claim 28.	The kit of claim 27, wherein said first
	2	and second sampl	es are obtained at different time periods.
	3		
	45 pb	Claim 29.	Polyclonal antibodies/produced against a
	5	marker selected	from the group consisting of sequence ID
	6	\	RIRHHPEHFSGRPRE, BITGIIKYEKPGSPPRE,
	7	(R) VDVIPVNLPGEH	GQR(L) or an analyte thereof in at least
	8	one animal host.	
	9		
	10	Claim 30.	An antibody that specifically binds a
	11	biopolymer inclu	nding marker selected from the group
W	12	consisting of se	equence ID RHHPEHFSGRPRE, RIRHHPEHFSGRPRE,
e E	13	RITGIIKYEKPGSPP	RE (R)VDVIPVNLPGEHGQR(L) or at least one
u u	14	analyte thereof	
	15	V	
	16	Claim 31.	The antibody of claim 30 that is a
<u></u>	17	monoclonal antib	oody.,
	18		
	19	Claim 32.	The antibody of $Claim$ 30 that is a
	20	polyclonal antik	pody.
	21		
1	2124	Claim 33.	A process for identitying therapeutic
D	1230	avenues related	to a disease state comprising:
•	24	conducting	an analysis as provided by the kit of
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	1	dlaim 18; and
	2	interacting with a biopolymer selected from the group
	3	consisting of sequence ID RHHPEHFSGRPRE, RIRMHPEHFSGRPRE,
	4	RITGIIKYEKPGSPPRE, (R)VDVIPVNLPGEHGQR(L) or at least one
	5	analyte thereof;
	6	whereby therapeutic avenues are developed.
	7	
	8	Claim 34. The process for identifying therapeutic
	9	avenues related to a disease state in accordance with
	10	claim 33, wherein said therapeutic avenues regulate the
	11	presence or absence of the biopolymer selected from the
# #### ##	12	group consisting of sequence ID RHHPEHFSGRPRE,
	13	RIRHHPEHFSGRPBE, RITGIIKYEKPGSPPRE, (R) VDVIPVNLPGEHGQR(L)
#	14	or at least one analyte thereof.
	15	
	16	Claim 35. The process for identifying therapeutic
<u></u>	17	avenues related to a disease state in accordance with
	18	claim 33, wherein said therapeutic avenues developed
	19	include at least one avenue selected from a group
	20	consisting of 1)utilization and recognition of said
	21	biopolymer markers, variants or moieties thereof as direct
	22	therapeutic modalities, either alone or in conjunction
	23	with an effective amount of a pharmaceutically effective
	24	carrier; 2) validation of therapeutic modalities or disease

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1	preventative agents as a function of biopolymer marker
2	presence or concentration; 3) treatment or prevention of a
3	disease state by formation of disease intervention
4	modalities; 4) use of biopolymer markers or moieties
5	thereof as a means of elucidating therapeutically viable
6	agents, 5) instigation of a therapeutic immunological
7	response; and 6) synthesis of molecular structures related
8	to said biopolymer markers, moieties or variants thereof
9	which are constructed and arranged to therapeutically
10	intervene in said disease state.
11	
12	Claim 36. The process for identifying therapeutic

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18

The process for identifying therapeutic avenues related to a disease state in accordance with claim 35, wherein said treatment or prevention of a disease state by formation \df/\disease intervention modalities is the formation of biopolymer/ligand conjugates which intervene at receptor sites to prevent, delay or reverse a disease process.

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The process for identifying therapeutic Claim 37. avenues related to a disease state in accordance with claim 35, wherein said means of elucidating therapeutically viable agents includes \u00e4se of a bacteriophage peptide display library or \alpha bacteriophage

1 antibody library.

2
3
3
Claim 38. A process for regulating a disease state
4 by controlling the presence of absence of a biopolymer
5 selected from the group consisting of sequence ID
6 RHHPEHFSGRPRE RIRHHPEHFSGRPRE, RITGIIKYEKPGSPPRE,
7 (R) VDVIPVNLPGEHGOR(L) or at least one analyte thereof.
8